42 Things We Know About MnRAM in Ten Minutes

1. It all started in 1991 when WCA passed because implementation is done locally by… …41 Counties, 223 cities, 39 SWCDs, 46 townships, 8 watershed districts/WMOs, and they needed a common approach to unify regulation.

2. Red highlighted items mean… …that you can answer those questions in the office, ahead of time.

3. MnRAM is not a "Rapid" method, it is a… "Routine" method.

4. How long will it take to complete the field portion? 2-3 hours.

5. What is the current version? 3.4

6. What is the most recent version the Board has approved? 3.1

7. What year was it approved? 2007

8. What is the only other wetland evaluation method approved by the Board? HGM, from 1993.

9. Isn't there a more recent HGM? Yes, there is a Prairie Pothole HGM from 2006.

10. Can you use Excel to score MnRAM? Yes, but it isn't recommended. The Excel version lacks the data storage capacity of the Access database and can't accommodate anything other than the most ordinary sites.

11. What do MnRAM and the Lego Movie have in common? Everything is Awesome! and… Everything is good when you're part of a team.

12. When will MnRAM allow you to find your site on a Google map? With version 4.0 (not yet in development).

13. How many paper pages was Version 1.0? 14 pages, double-sided.

14. How many paper pages was Version 2.0? 44 pages, double-sided.

15. How many paper pages was Version 3.0? 41 pages double-sided. It was also released on cd as a database, so paper was no longer required.

16. Why don't we use paper anymore? Science! Progress! Math is hard. Paper gets wet.

17. True or False—you can do MnRAM and figure out all the answers using the formulas, by hand? True, if you have a sharp pencil and a high tolerance for detail.

18. What parts of the WCA Rule suggest or require MnRAM to be used? Upland Buffer – Action Eligible for Credit. The WCA Rule allows for up to 50% credit for the upland buffer if a functional assessment such as MnRAM justifies the higher credit amount.

19. Can MnRAM be used for performance standards for compensatory mitigation? No, MnRAM is not sensitive enough to be used for performance standards for compensatory mitigation if the starting point is a wetland prior to restoration. Performance standards require quantitative evaluations and MnRAM is not quantitative.

20. Has MnRAM been calibrated to actual wetlands? Yes, the MnRAM Workgroup members ran MnRAM on different actual wetlands and compared answers. Based on that work, we changed some formulas and adjusted the wording or guidance of questions.

21. True or False—there is a right and a wrong answer for every question? False. There will be differences of opinion among equally-trained professionals on how to answer some questions that require Best Professional Judgment.

22. What agencies and entities are represented on the Workgroup? BWSR, DNR, PCA, Fond du Lac Reservation, Consultants, MnDOT, Hennepin County, and the US Army Corps of Engineers.

23. How did the workgroup choose the exact numbers, like that buffer over 20 feet brings Water Quality to High but only brings Habitat to Medium? From peer-reviewed studies published in journals. The citations are listed in the bibliography of the Comprehensive Guidance.

24. What are the precursors to MnRAM? In other words, what other methods were in use back in the late 1980s and early 1990s that the first version borrowed from? New Hampshire Method, Wetland Evaluation Technique (WET), Minnesota Wetland Evaluation Methodology (WEM), Minnehaha Creek Routine Assessment Method, HGM.

25. What other states have "RAM" methods? California, Ohio, Florida.

26. What other states have assessment methods that don't have "RAM" in the name? Maryland, Delaware, Massachusetts, Montana, Oregon, Virginia, Washington State, Wisconsin.

27. The Corps developed HGM. Do they accept MnRAM? Yes, they have used MnRAM successfully in court cases to defend their decisions. More than once.

28. Why are there two questions about outlets? Why are there so many questions about buffer? The MnRAM questions try to get at many different aspects of wetland function and value. Some functions of wetlands are associated with high value only in relation to whether humans are around to benefit from them. Some wetland structures can only provide function, or value, in certain situations. We narrowed it down the best we could, but it seems to take about 72 questions to get enough data to get it right.

29. What is the deal with Amphibians? There are, relative to other fauna, a lot of questions specifically about amphibians. Wetlands are pretty important to frogs and newts. Frogs are oddly photogenic and even more so when, just as MnRAM was being developed, those school kids found them with five or six legs. Also, we had an amphibian enthusiast on the Workgroup.

30. I'm going out in the field tomorrow and don't have time to do the office pre-work. Can't I just fill it in later? Yes, you can. But good luck—it is almost certain that you will find something that needs to be verified in the field and you'll have to go back out again, anyway. (For example, what looks like a pipe discharge in an aerial photo might have been hidden by weeds during your site visit.)

31. What is the difference between conditional and functional assessment? A conditional assessment is a measure of the overall health of a wetland, usually relative to a reference/pristine site of the same type. Functional assessment evaluates the extent to which a wetland performs certain functions (and values). Some wetlands are naturally better at certain function, or can be manipulated to be better at them (water storage capacity), at the expense of other functions.

32. Does MnRAM assess condition? No, it is called a functional assessment, not a conditional assessment.

33. What is the difference between function and value? Function is what a wetland does. Value is what we think of that. Retaining flood water is useful to humans if flooding would damage crops or real estate. A wetland that is immediately upslope to a drinking water resource is going to be more valuable than a similar site without it.

34. Why collect soil information if it never gets used in any formula? We provide space to record some information, like soils, if you have it, because we want you to be able to keep all your information on a site in one place. MnRAM collects information like standing water depth and contributing watershed area because that

information will be useful if, in the future, it can be collected for research studies. Also, it can be useful to defend your assessment if it comes under question.

35. Why can't we take the average of all the functional scores for a total, overall number? Averaging dilutes all the best things about a wetland and spreads out the worst. Using an average doesn't allow you to see what a wetland can do for you or where it could use some extra help. If you must, choose one measure, like Vegetation, and just show that all the time.

36. If it's all Best Professional Judgment, why are there such specific numbers in the questions (drain pipes a certain size, distances to other wetlands or resources)? It isn't all Best Professional Judgment. The scientific parameters add stability and give Trained Professionals guidelines for how to assess certain aspects. The specific numbers are based on studies, which were performed by humans and are also subject to BPJ. Do your best and explain why if you diverge from the set path.

37. Why use Best Professional Judgment at all? Why not make it all by the numbers? Using BPJ increases the speed. Also, parameters are all chosen by humans even when doing it numerically. Humans can get it wrong even when we do our best to remove ourselves from the equation (see #36).

38. There is a section that is called Optional Evaluation Information. Is it really optional? Yes, it is optional. Restoration potential, sensitivity to stormwater and urban development, and additional stormwater treatments needs are not aspects that every manager needs to consider every time.

39. Management criteria address… Stormwater pretreatment and treatment, buffers, bounce and inundation, and replacement ratio of mitigation.

40. How many different ways are there to report Vegetative Diversity? Four ways: Individual scores, Highest Quality community, Non-Weighted Average, and Weighted Average (to account for some vegetative communities being smaller than others).

41. Can MnRAM be used to determine how much mitigation is needed? MnRAM can't be used for exact measurement of function and is inappropriate to use to estimate exactly how much mitigation is needed.

42. What part of MnRAM can be used for an otherwise-low-quality wetland that has some rare plants growing in it? If you find rare plants, there is a Special Feature to check. That will bump the Vegetative Function to Exceptional. If the wetland is threatened by development, you should probably use a more sophisticated assessment measure like an IBI or the Floristic Quality Assessment.